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ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපා**ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව**විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka Department **இலங்கைப் பரீட்சைத் திணைக்களம்**ns, Sri Lanka
ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග **Department of Examinations, Sri Lanka** විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கை **Department of Examinations, Sri Lanka** இலங்கைப் பரீட்சைத் திணைக்களம்

| GIT | 01 | E | I, II |

සාමාන්‍ය තොරතුරු තාක්ෂණ විභාගය,	2015
பொதுத் தகவல் தொழினுட்பவியல்,	2015
General Information Technology Examination,	2015

සාමාන්‍ය තොරතුරු තාක්ෂණය	I, II	පැය තුනයි
பொதுத் தகவல் தொழினுட்பவியல்	I, II	மூன்று மணித்தியாலம்
General Information Technology	**I, II**	**Three hours**

General Information Technology I

Important : * Answer all questions on the Answer Sheet provided.

* Write your Index Number in the space provided on the answer sheet.

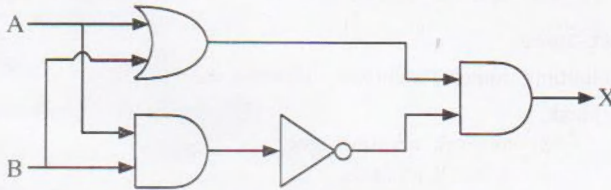* Instructions are given on the back of the answer sheet. Follow them carefully.

* In each of the questions 1 to 40, pick one of the alternatives (1), (2), (3), (4) which is correct or most appropriate and mark your response on the answer sheet in accordance with the instructions given therein.

1. In which of the following situation/s will a tablet computer be suitable?
   A - for a sales representative to use while he is travelling
   B - to be used in a school office to enter daily attendance data of students
   C - to enter data during a field visit
   (1) A only   (2) B only   (3) A and B only   (4) A and C only

2. Consider the following logic circuit diagram.

A	B	X
0	0	
0	1	
1	0	
1	1	

The outputs X for the inputs given in the truth table for the above logic circuit are, respectively,
   (1) 0, 0, 0, 0   (2) 0, 1, 0, 1   (3) 0, 1, 1, 0   (4) 1, 0, 1, 0

3. Which of the following sentence(s) is/are correct?
   A - The hard disk has a larger capacity than main memory.
   B - The data in main memory are lost when the power is turned off while the data in hard disk are not.
   C - The data in main memory are stored in electronic circuits while the data in the hard disk are stored on magnetic media.
   (1) A only   (2) B only   (3) C only   (4) All A, B and C

4. Figures 1 and 2 below illustrate two circuits that use a battery and two switches (A and B) to operate a bulb.
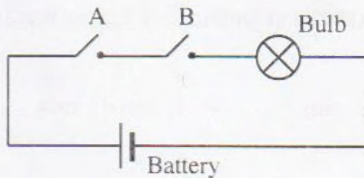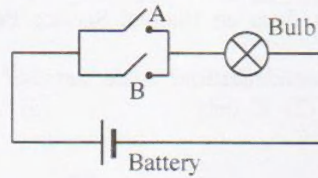

Figure 1

Figure 2

Which of the following logic gate combinations represent the operation of the above two circuits in figures 1 and 2 respectively?

	Table 1	
	File	**Size (MB)**
	A	224
	B	770
	C	815
	D	1025

5. Table 1 lists four files and their sizes.

   Which of the files in the table could be stored in a flash memory drive having a total capacity of 4 GB, if 3GB of the flash memory is already used?
   *(1) A and B only   (2) A and C only
   (3) B and C only   (4) C and D only

6. Which of the following decimal numbers is equivalent to the binary number 100110?
   (1) 27   (2) 30   (3) 38   (4) 43

7. Which of the following binary numbers is equivalent to the decimal number 73?
   (1) 1000101   (2) 1001001   (3) 1010001   (4) 1100001

8. Consider the following statements.
   A - Infrared transmission is an example for the use of unguided media.
   B - Microwave transmission generally used for long distance data communication is an example for the use of radiated media.
   C - Fibre optic cables are examples for unguided media.
   Which of the above statement/s is/are correct?
   (1) A only   (2) B only   (3) A and B only   (4) B and C only

9. What is the most likely name of the folder that stores deleted messages in an email software?
   (1) Drafts   (2) Inbox   (3) Sent   (4) Trash

10. Which of the following statement/s is/are correct?
    A - IP addresses are used to identify computers on the Internet.
    B - Internet and the World Wide Web (WWW) are two separate but related things: WWW is a service on the Internet while the Internet is the network infrastructure providing such services.
    C - Large files such as videos which cannot be sent by e-mail as attachments can be sent to another computer via FTP (File Transfer Protocol).
    (1) B only   (2) C only   (3) A and B only   (4) All A, B and C

11. Which of the following fields is most suitable as a primary key for a database table used for storing data about books in a school library?
    (1) author name   (2) book title   (3) ISBN   (4) price

• Consider the following database table to answer questions **12**, **13** and **14**. The table shows data about items available for sale at a school canteen.

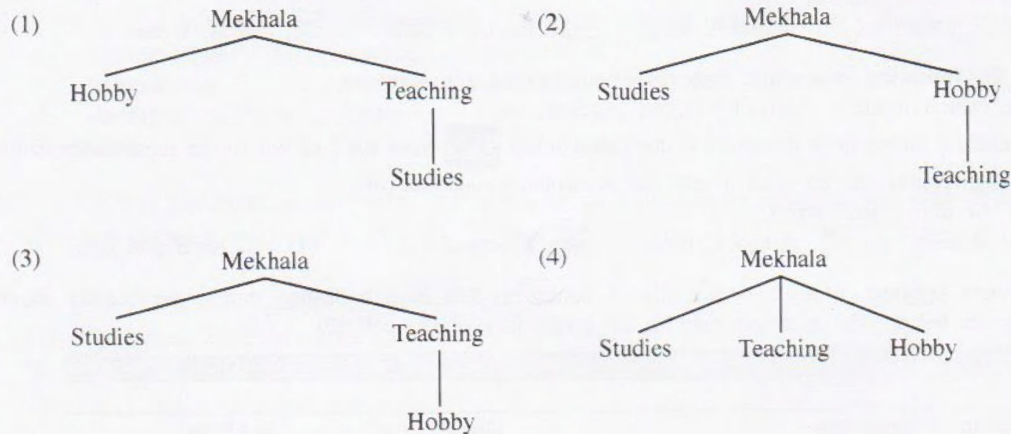| Product_ID	Product_Description	Quantity	Unit_Price	Supplier_ID
P001	Yoghurt	25	30.00	S02
P002	Milk (Vanilla)	35	20.00	S02
P003	Milk (Chocolate)	25	20.00	S02
P004	Peanut Packs	55	10.00	S05

12. What is the most suitable data type for 'Unit_Price'?
    (1) Boolean   (2) Currency   (3) Number   (4) Text

13. How many records are there in the table?
    (1) 4   (2) 5   (3) 20   (4) 25

14. Which of the following fields is most suitable as the primary key?
    (1) Product_ID   (2) Quantity   (3) Supplier_ID   (4) Unit_Price

15. Which of the following is/are appropriate to be used as a password in an email software that you use?
    A - your full name without spaces
    B - a term which is more than eight characters long and has at least one capital letter, one simple letter, one digit and one special character such as %
    C - your date of birth
    (1) A only   (2) B only   (3) A and B only   (4) All A, B and C

16. Which of the following is an operating system?
    (1) Microsoft Powerpoint   (2) Microsoft Word
    (3) OpenOffice Impress   (4) Ubuntu

17. Mekhala is a student studying English Literature, Western Music and Geography for her A/Level examination. She also helps some O/Level students in her village by teaching them English and Mathematics. Music is her hobby. She has a lot of files on the above areas that she wants to store in her computer using a suitable directory structure.

    Which of the following directory structures would be the most suitable?

    (1)   Mekhala   (2)   Mekhala

        Hobby   Teaching   Studies   Hobby

                         Studies   Teaching

    (3)   Mekhala   (4)   Mekhala

        Studies   Teaching   Studies   Teaching   Hobby

                         Hobby

18. Which of the following statements are correct?
    A - A computer can be conveniently used without an operating system.
    B - The disk defragmentation utility changes non-contiguous files on a disk to contiguous files to optimize performance.
    C - The operating system interface could be used to control the basic settings in a computer.
    (1) A and B only   (2) A and C only   (3) B and C only   (4) All A, B and C

19. Consider the following statements.
    A - checking the spellings and grammar of a document
    B - controlling and operating the logic gates in the hardware
    C - managing resources and input output devices in a computer system
    Which of the above are functions of an operating system?
    (1) A only   (2) B only   (3) C only   (4) All A, B and C

20. Some menu headings and some sub-menus in a word processing package are listed in columns A and B respectively.

A	B
A1. Insert	B1. Margins, Orientation, Size
A2. Page Layout	B2. Print Layout, Outline, Zoom
A3. View	B3. Table, Picture, Header, Footer

    The correct matching between columns A and B is:
    (1) A1:B1, A2:B2, A3:B3   (2) A1:B2, A2:B3, A3:B1
    (3) A1:B3, A2:B1, A3:B2   (4) A1:B3, A2:B2, A3:B1

21. Which of the following icons available in a word processing package can be used to create a bulleted list?

    (1)   (2)   (3)   (4)

22. Consider the equation $x = n_1 + n_2$ in a word processed document. Which of the following features in the word processing package will help to display the numbers 1 and 2 as shown in the equation?
    (1) Font face change   (2) Font size change
    (3) Subscript   (4) Superscript

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23. A teacher uses a presentation software in slide show mode and during the presentation she wants to draw the attention of the class towards her for a few seconds by hiding the content of the current slide. Which key should she press?

    (1) A   (2) B   (3) F1   (4) F5

24. Consider the following statements with respect to slide design in electronic presentations.

    A - Slides should be kept simple to ease the reader's understanding of the content.
    B - It is good to make each slide independent if possible.
    C - One should use colour and text effectively.
    Which of the above are correct?

    (1) A and B only   (2) A and C only   (3) B and C only   (4) All A, B and C

25. Consider the following statements with respect to presentation software.

    A - One cannot insert a video clip into a presentation.
    B - To insert a table into a presentation one could select ⊞ from the tool bar in the presentation software.
    C - Timing feature can be used to run the presentation automatically.
    Which of the above are correct?

    (1) A and B only   (2) A and C only   (3) B and C only   (4) All A, B and C

26. A spreadsheet segment which shows a list of books on sale at a bookshop during the literary month of 2015 is given below. The discount rate for all books is given in cell B9.

	A	B	C	D	E
1					
2	BookNo	Book Title	Regular Price	Sale Price	
3	0001	Baddegama(Village in the Jungle)	325		
4	0002	Madolduwa	200		
5	0003	Space Odessy	400		
6	0004	Clever Poet and Rice Grains	225		
7					
8					
9	Discount	20%			
10					
11					

    A formula is written in cell D3 to display the sale price of the book '0001'. This formula is to be copied to the range D4:D6 to display the sale prices of other books. Which of the following is a valid formula to be written in cell D3?

    (1) =C2−C2*$B9   (2) =C2−C2*$B$9   (3) =C2−C2*B9   (4) =C2−C2*B9$

27. Which of the following SUM function(s) is/are valid?

    Ⓐ SUM(A2,A3:A5)   Ⓑ SUM(A3:A7)   Ⓒ SUM(A3,A4,A7)

    (1) Ⓐ only   (2) Ⓑ only   (3) Ⓐ and Ⓑ only   (4) All Ⓐ, Ⓑ and Ⓒ

28. Which of the following formula/formulae is/are valid?

    Ⓐ =A3+A5
    Ⓑ =A3+A5+SUM(K1:K6)
    Ⓒ SUM(K1:K6)

    (1) Ⓐ only   (2) Ⓑ only   (3) Ⓒ only   (4) Ⓐ and Ⓑ only

29. Consider the following spreadsheet segment.

    If the formula in cell C2 is copied to the range C3:C6, what will be the values in cells C2 and C5 respectively?

    (1) 3, 5   (2) 5, 3
    (3) 34, 68   (4) 34, 80

	A	B	C	D	E
1	name	marks			
2	saman	34	=RANK(B2,$B$2:$B$6)		
3	anwar	67	RANK(number, ref, [order])		
4	thabotharn	90			
5	nazeer	68			
6	Kamala	80			
7					

30. Which of the following media uses light waves for communication?
    (1) co-axial cable   (2) optical fiber   (3) twisted pair   (4) USB cable

31. Consider the following media.
    A - twisted pair cable
    B - USB cable
    C - optical fiber
    Which of the above media are suitable to be used to connect a laptop computer directly to a standalone printer?
    (1) A and B only   (2) A and C only   (3) B and C only   (4) All A, B and C

32. Which of the following are advantages of a computer network compared to a standalone desktop?
    A - sharing of data among machines on the network
    B - reduced risk of malware attacks on the machines connected to the network
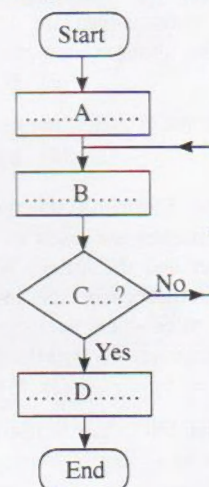   C - sharing of software applications on the central server
    (1) A only   (2) B only   (3) A and B only   (4) A and C only

33. The labelled flowchart below shows the steps to be followed for crossing the road safely. The relevant activities involved are listed as Ⓟ, Ⓠ, Ⓡ and Ⓢ.

    Ⓟ - Cross the road carefully
    Ⓠ - Stop near the Zebra crossing
    Ⓡ - Look right, left and right again
    Ⓢ - Is the road clear on both ways

    Which of the following gives the correct matching?
    (1) A : Ⓠ, B : Ⓟ, C : Ⓡ, D : Ⓢ
    (2) A : Ⓠ, B : Ⓡ, C : Ⓢ, D : Ⓟ
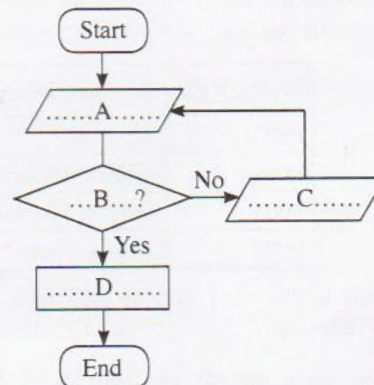   (3) A : Ⓡ, B : Ⓢ, C : Ⓠ, D : Ⓟ
    (4) A : Ⓢ, B : Ⓡ, C : Ⓠ, D : Ⓟ

34. The labelled flowchart below shows the user login process in an online email system. The relevant activities involved are listed as Ⓟ, Ⓠ, Ⓡ and Ⓢ.
    Ⓟ - Display error message
    Ⓠ - Are the user name and password valid
    Ⓡ - Enter user name and password
    Ⓢ - Permit user into the system

    Which of the following gives the correct matching?
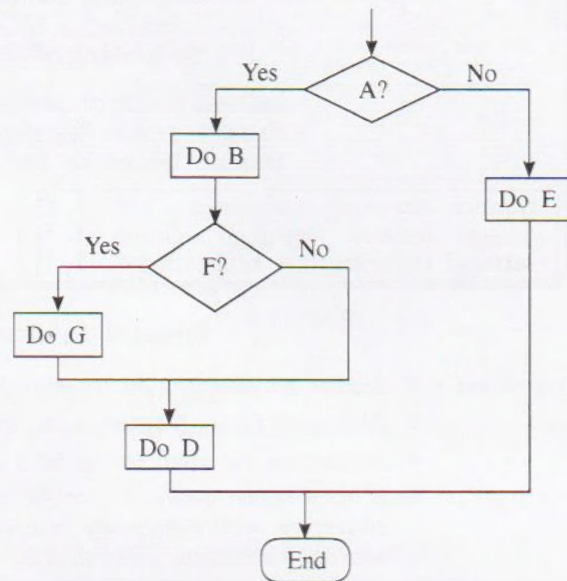   (1) A : Ⓟ, B : Ⓠ, C : Ⓡ, D : Ⓢ
    (2) A : Ⓠ, B : Ⓡ, C : Ⓟ, D : Ⓢ
    (3) A : Ⓡ, B : Ⓠ, C : Ⓟ, D : Ⓢ
    (4) A : Ⓢ, B : Ⓠ, C : Ⓡ, D : Ⓟ

35. Which of the following represents the logic in the given flowchart segment?

    (1) If A Then
          Do B
          If F Then
            Do D
          Endif
          Do G
       Else
          Do E
       Endif

    *(2) If A Then
          Do B
          If F Then
            Do G
          Endif
          Do D
       Else
          Do E
       Endif

    (3) If A Then
          Do B
          If F Then
            Do G
          Endif
          Do D
       Endif
       Do E

    (4) If A Then
          Do E
       Else
          Do B
          If F Then
            Do G
          Endif
          Do D
       Endif

36. Consider the following statement with blank spaces.

.... software has source code that cannot be modified by anyone but the person, team or organization who created it and maintains exclusive control over it while .... software is licensed to be free to use, modify and distribute.

Which of the following phrases are appropriate to fill the above blank spaces respectively?

(1) Closed source, commercial   (2) Commercial, closed source
(3) Free and open source, proprietary   *(4) Proprietary, free and open source

37. Consider the following statement with a blank space.

The job of a .... could involve maintaining routers, switches, firewalls etc.

The most suitable job title to fill the above blank is

(1) desktop publisher.   *(2) network administrator.
(3) software engineer.   (4) systems analyst.

38. Consider the following related to the use of web.
A - Deleting e-mails that are more than two months old
B - Avoiding meeting face-to-face, people whom you have only met in a social media site
C - Sending confidential information such as credit card numbers in e-mails
Which of the above are appropriate measures in using web in a safe manner?
(1) A and B only   (2) A and C only   (3) B and C only   (4) All A, B and C

39. Saman says that downloading files from the Internet to his home computer is slow. One of his friends suggests the following to improve the speed.
A - Fix an external hard disk to the computer.
B - Install a better graphics card on the computer.
C - Obtain the services from an Internet Service Provider (ISP) who provides a higher bandwidth in the area.
Which of the above recommendations is/are suitable?
(1) A only   (2) C only   (3) A and C only   (4) B and C only

40. Consider the following.
A - Hardware specification of the computer
B - Reputation of the seller
C - Warranty period and quality of after sales service
Which of the above aspects are important in purchasing a computer?
(1) A and B only   (2) A and C only   (3) B and C only   *(4) All A, B and C

✲ ✲

N.5.

| GIT | 01 | E | I, II |

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பொதுத் தகவல் தொழினுட்பவியல்,		**2015**
General Information Technology Examination,		**2015**

සාමාන්‍ය තොරතුරු තාක්ෂණය	I, II
பொதுத் தகவல் தொழினுட்பவியல்	I, II
General Information Technology	**I, II**

General Information Technology II
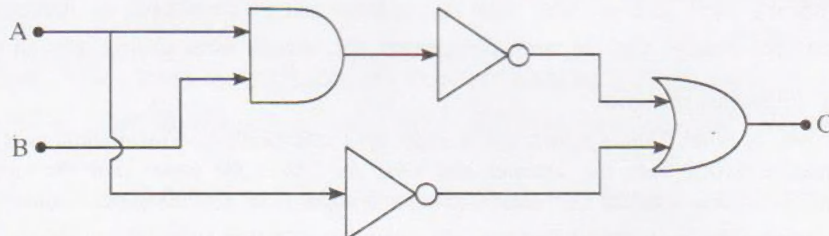
* Answer **four** questions only.

1. (a) A toy musical instrument has two buttons P and Q to select and play a song. If any one of the buttons is pressed, the respective song is played. When both buttons are pressed at the same time, a song is not played. Consider the following states.

   - A button (P, Q) is pressed or not
     - button is pressed — state '1'
     - button is not pressed — state '0'

   - A song is played or not (Y)
     - a song is played - state '1'
     - a song is not played - state '0'

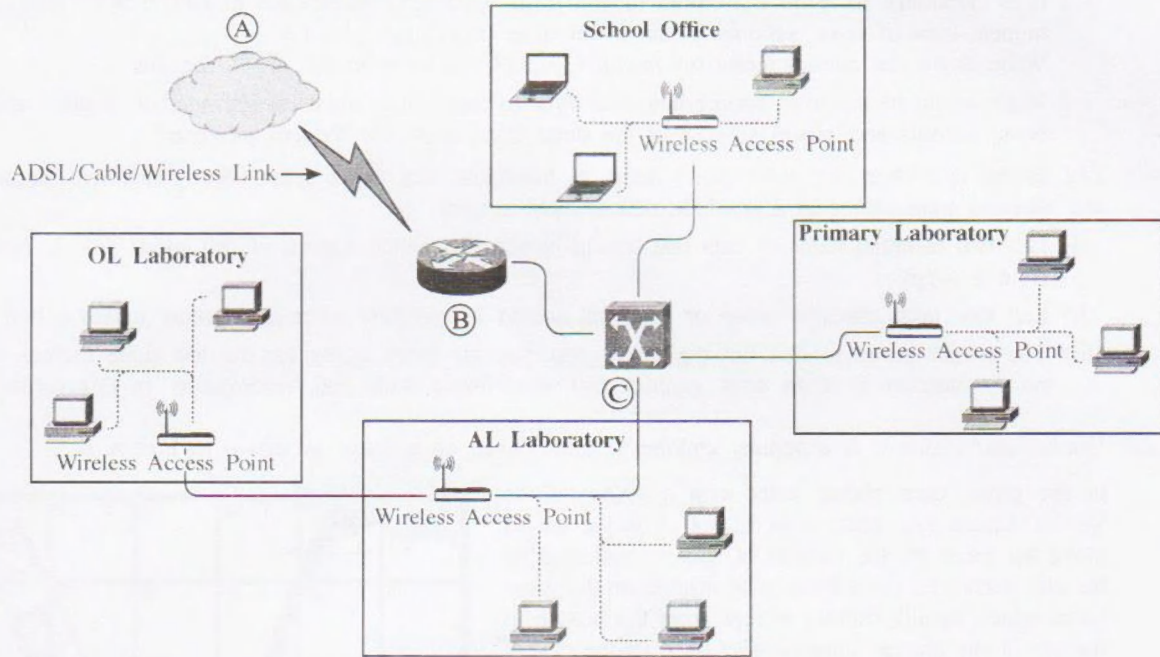   Copy the following truth table on to your answer script and complete the column Y.

P	Q	Y
0	0	
0	1	
1	0	
1	1	

   (b) Draw the truth table for the logic circuit in the following diagram.

   (c) State **two** advantages of a laptop computer when compared with a desktop computer.

   (d) Utility programs help to manage, maintain and control computer resources. Which of the following can be considered as utility programs?
      (i) Search engines   (ii) Spreadsheet software
      (iii) Disk defragmenters   (iv) Disk Scanners
      (v) Graphic design software   (vi) Backup software

   (e) The fruit juice manufacturing company 'Pure Juice' requests a software developing organization to develop two software applications to automate its accounting activities and stock control activities. The Pure Juice company purchases a pay-roll application to process salaries and an office automation software for word-processing and spreadsheet activities from a software vendor.

      (i) From the two types given below, what is the term used to describe the type of software required by Pure Juice from the software developing organization?
         {tailor-made software, packaged software}

      (ii) From the two types given below, what is the term used to describe the type of software that Pure Juice bought from the software vendor?
         {tailor-made software, packaged software}

      (iii) Give **one** advantage of packaged software over tailor-made software.

2. (a) The following diagram shows a part of a school computer network which is connected to the outside world. Identify and write down the relevant items labelled as Ⓐ, Ⓑ and Ⓒ.

(b) (i) Consider the following URL.

http://www.moe.gov.lk/english/index.php

Match the labels Ⓟ - Ⓢ used to denote different parts of the above URL with the correct letters in the list given below.

{A : File name, B : Protocol used in the communication between the web browser and web server, C : Sub-domain, D: Top level domain}

(ii) Consider the following image showing an email that is being prepared to be sent to five recipients Amara, Rakesh, Kamala, Nazeer and Sama by the school IT teacher.

New Message	
To:	amara@yahoo.com ×
Cc:	rakesh@gmail.com × kamala@hotmail.com ×
Bcc:	nazeer@yahoo.co.uk × sama@freemail.com ×
From:	IT_Teacher<it.teacher@abc.sch.lk> ▼
Subject:	Difference between Cc and Bcc

List the email addresses that will appear in the mail received by each of the following.
A - Nazeer   B - Kamala   C - Amara

(c) State whether the following statements related to operating systems are **true** or **false**.
(i) Files may contain directories and other files.
(ii) One of the functions of an operating system is to interact with input/output devices such as keyboard, display and printer.
(iii) A key function of an operating system is to provide a command-based or graphical user interface to operate the computer.
(iv) An operating system facilitates user account management by providing separate logins for users.

3. (a) **Figure 1** shows a text document partially formatted using a word processing software. Elements to be formatted in this document are labeled as Ⓐ - Ⓔ.

Ⓐ ➤ The Three R's of Waste Reduction

Ⓑ {
The waste disposal of most people is haphazard. Garbage is routinely thrown to road sides in polythene bags. In addition to the waste in their contents, polythene bags themselves, due to their non-degradable nature, will clog drains creating flash floods even from a slight drizzle. They may also create breeding areas for deadly mosquitoes. Some of the waste that is dumped is highly toxic. Some waste like cloth and aluminum may take many years to decompose. Glass has been found in perfect condition even after thousands of years on earth. Many toxic liquids from industry and vehicle service stations are allowed to get absorbed into the earth. Heaps of garbage is unsightly too. The serene environment is under threat.

Ⓒ {
To ensure a healthy and a livable environment for our future generations we have to stop spoiling our environment and start protecting it. An accepted way of environmental protection is to follow what is known as the 3R method. The Three R's denote reduce, reuse and recycle respectively.
Ⓓ   Ⓔ

Descriptions of these three techniques are shown in **Table 1**.

Table 1. The Three R's

Technique	Description
Reduce	Reducing the amount of waste that is produced
Reuse	Instead of throwing things away, reusing them again and again
Recycle	Creating new products out of waste

Figure 1

Figure 2 shows the tool bar of the interface of the word processing software that is being used to format the above document. Some tools on it are labelled 1 to 17.
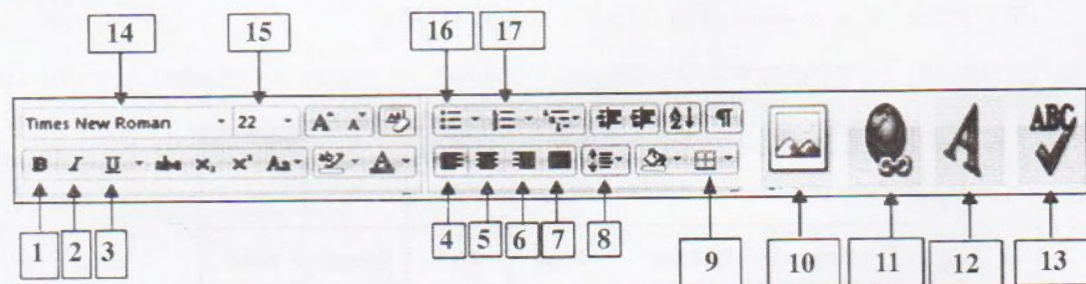
Figure 2

Write down how you could complete the following tasks using the necessary tools from those labelled in **Figure 2**. (Note: **No** marks will be awarded if more than the required number of tool labels are given.)

(i) Center the title of the document shown by label Ⓐ.

(ii) Increase the font size of the document title to 15. (Assume that the current font size is 12.)

(iii) Make the document title bold.

(iv) Justify paragraphs labelled Ⓑ and Ⓒ.

(v) Make the text labelled Ⓓ italic.

(vi) Underline the text labelled Ⓔ.

(vii) Check the spellings in the document.

(viii) Add a new table to the document after **Table 1**.

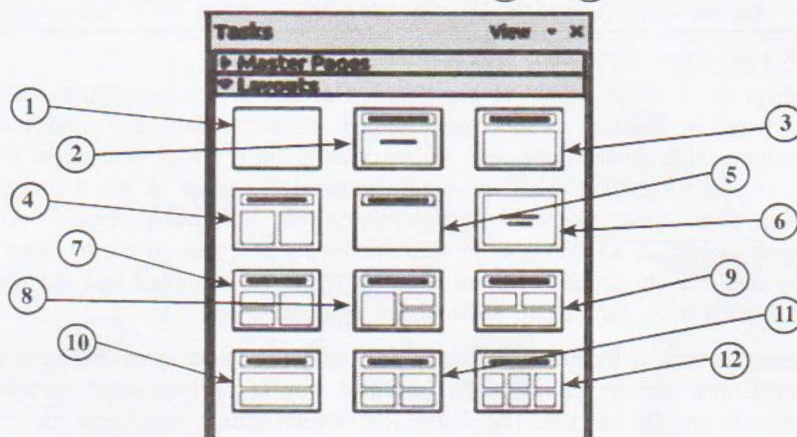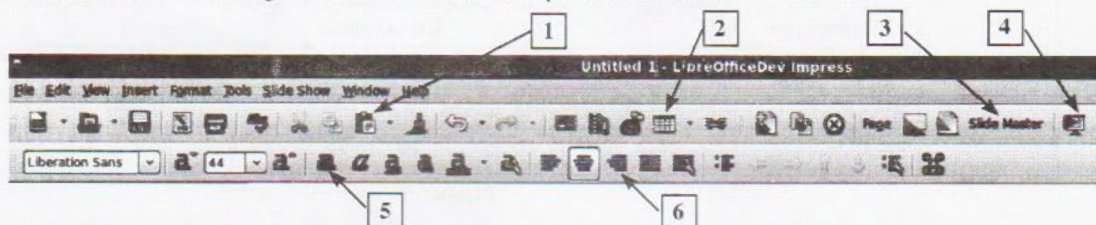(b) Consider the following presentation layouts labelled ① to ⑫.

Figure 3

(i) Which of the labelled slide layouts in **Figure 3** is most suitable for a title slide in a presentation?

(ii) Consider the following labelled interface of a presentation software tool bar.

Write down the label of the tool that you would use to achieve the following.

(i) Run the presentation as a slide show.

(ii) Change the appearance of all slides in the presentation.

4. (a) Consider the following spreadsheet segment containing the number of government schools classified by the gender of students for three provinces of Sri Lanka in 2013.

	A	B	C	D	E	F
1	Number of Government Schools By Gender 2013					
2	Province	District	Boys	Girls	Mixed	Total
3		Colombo	37	56	310	
4	Western	Gampaha	10	20	501	
5		Kalutara	6	12	387	
6		Total				
7		Kandy	14	21	610	
8	Central	Matale	1	3	311	
9		Nuwaraeliya	2	5	538	
10		Total	17	29	1459	
11		Galle	7	10	409	
12	Southern	Matara	4	4	352	
13		Hambantota	1	2	313	
14		Total	12	16	1074	

(Source: http://www.moe.gov.lk/)

(i) It is necessary to write a formula of the form =*function1(cell1:cell2)* in cell C6 to calculate and display the total number of boys' schools in the Western province.

Write down the appropriate terms for *function1, cell1 and cell2* in the above formula.

(ii) It is necessary to copy the formula entered in cell C6 to both cells D6 and E6. The steps followed for this purpose are labelled as Ⓐ, Ⓑ and Ⓒ below. However, the order of steps is incorrect. Write down steps Ⓐ - Ⓒ in the correct order.

Ⓐ Drag the fill handle to E6.

Ⓑ Click on C6.

Ⓒ Click on fill handle.

(iii) What formula would be displayed in cell D6 when the formula in cell C6 is copied to cell D6?

(iv) It is necessary to write a formula of the form =*function2(cell3:cell4)* in cell C15 to display the highest total of boys' schools in the given three provinces.
Write down the correct terms for *function2, cell3 and cell4* in the above formula.

(v) What would be the most appropriate chart type to graphically represent the number of girls' schools, boys' schools and mixed schools in the three districts of the Western province?

(b) *XYZ Sports* is a shop that sells sports items. It maintains data about sports items, suppliers, customers and business transactions in a database management system.

(i) List **two** essential items of data that should be recorded when a stock of one sports item is received from a supplier.

(ii) List **two** most essential items of data that should be recorded when a customer makes a purchase.

(iii) The owner needs to find out the three most popular sports items for the last three months based on the number of items sold. Identify and write down 'data' and 'information' in this scenario.

5. (a) *'Snakes and Ladders'* is a popular children's game played on a board as shown in **Figure 1**.

In the game, each player starts with a token on the START square and takes turns to roll a single die to move the token by the number of squares indicated by the die. Tokens follow a fixed route marked on the game board which usually follows a track from the bottom to the top of the playing area, passing once through every square. If, on completion of a move, a player's token lands on the lower-numbered end of a "ladder", the player must move the token up to the ladder's higher-numbered square. If the player lands on the higher-numbered square of a "snake", the token must move down to the snake's lower-numbered square.
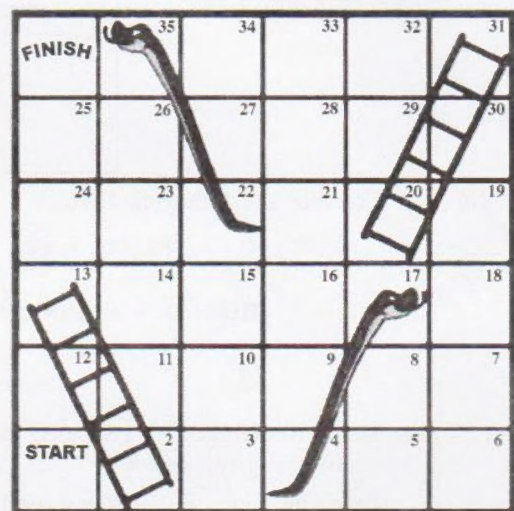
Figure 1

The flowchart shown below demonstrates the steps for **making a single move** in the game with some steps indicated by labels Ⓐ-Ⓔ. Match the labels Ⓐ-Ⓔ in the flowchart with the phrases in the following list:

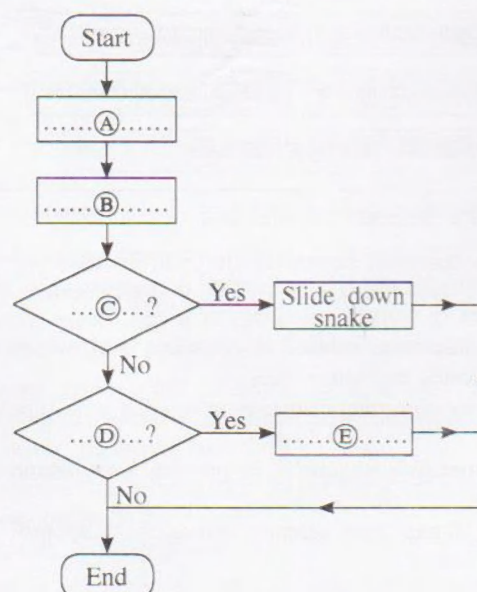{Climb up ladder, Landed on snake head, Roll the die, At the bottom of a ladder, Move the token}

Figure 2

(b) Consider the following flowchart for calculating the average of ten (10) numbers. The contents of labels Ⓟ to Ⓣ are missing in the flowchart.
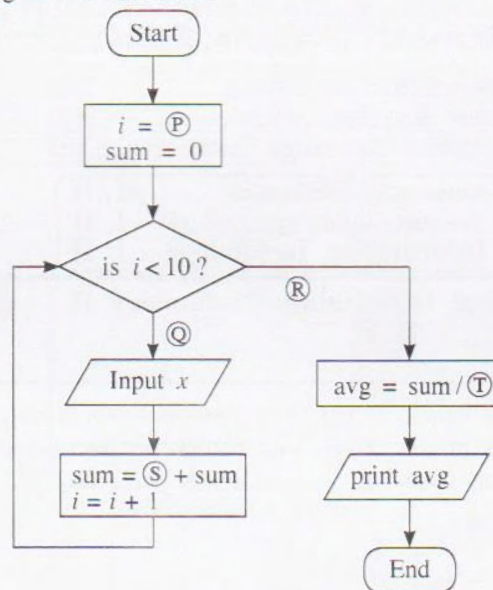
```
                    ┌─────────┐
                    │  Start  │
                    └─────────┘
                         │
                    ┌─────────┐
                    │ i = Ⓟ   │
                    │ sum = 0 │
                    └─────────┘
                         │
                 ◇─────────────◇
          ┌────│  is i < 10 ?  │────────────┐
          │     ◇─────────────◇    Ⓡ        │
          │          │ Ⓠ                     │
          │     ╱─────────╱          ╱──────────────╱
          │    ╱ Input x ╱          ╱ avg = sum / Ⓣ ╱
          │   ╱─────────╱          ╱──────────────╱
          │        │                       │
          │  ┌──────────────┐      ╱──────────╱
          │  │ sum = Ⓢ + sum│     ╱ print avg ╱
          │  │ i = i + 1    │    ╱──────────╱
          │  └──────────────┘           │
          └────────┘               ┌─────────┐
                                   │   End   │
                                   └─────────┘
```

Figure 3

Identify and write down the appropriate contents for the labels Ⓟ to Ⓣ from the following list.
{0, i, x, yes, no}

6. (a) Select the correct term from the list of terms given below that appropriately matches the description given in statements Ⓐ - Ⓓ. Write down the correct terms against statements Ⓐ - Ⓓ in your answer.

{Virus scanner, Encryption, Firewall, Spam Filter, Device driver, Backup, Disk defragmenter}

   Ⓐ The primary purpose of this is to recover data after its loss, due to data deletion or corruption.

   Ⓑ This is a software or hardware barrier designed to prevent unauthorized or unwanted access to computer networks by hackers.

   Ⓒ This converts plain text or other data into a form that is unreadable by humans.

   Ⓓ This prevents e-mails that are neither requested nor wanted from getting into an e-mail inbox.

(b) Consider the following scenario.

Assume that one of your friends offers you a copy of a commercial software that he bought from a shop that downloads software from the internet and sells on CDs. He states that the cost was significantly cheaper than the actual cost of the same software bought from the authorized agent.

State **two** reasons why you should **not** use the software CD that your friend offered.

(c) Consider the following.

"The digital divide is a division in the world population between those who are with and without access to ICT, knowledge of ICT and understanding of the opportunities presented by ICT. It consists of an infrastructure gap and a knowledge gap."

Write down **two** methods that can help to bridge the digital divide.

(d) State whether each of the following statements is **true (T)** or **false (F)**.

   (i) Since there are no boundaries to the Internet, some content (such as gambling) found on the web may be legal in one country while the same may be illegal in other countries.

   (ii) Privacy involves illegal copying and distribution of licensed software while piracy is concerned with the protection of personal information of individuals from unauthorized disclosure.

   (iii) It is necessary to use an uninterrupted power supply (UPS) unit for a web server computer providing important information to general public while it is not essential for a new laptop used for personal work.

✳ ✳ ✳